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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,639	01/22/2001	Masahiro Maeda	Q62740	6818

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EXAMINER	
DAY, HERNG DER	

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/765,639	MAEDA, MASAHIRO	
	Examiner	Art Unit	
	Herng-der Day	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2005 and 01 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to Applicant's Amendment ("Amendment") to Office Action dated January 21, 2005, mailed April 21, 2005, and RCE to Office Actions dated May 9, 2005, mailed June 1, 2005.

1-1. Claims 1, 6, and 9 have been amended. Claims 13-15 have been canceled. Claims 1-12 are pending.

1-2. Claims 1-12 have been examined and rejected.

Drawings

2. The replacement sheet of Fig. 4B received April 21, 2005, is acceptable. The objection to the drawings has been withdrawn.

Abstract

3. The Examiner has acknowledged without objection that the abstract has been amended.

Specification

4. The objections to the specification have been withdrawn.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6-1. Claim 11 recites the limitation "the reflecting information" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-5 are rejected under 35 U.S.C. 101 because the inventions as disclosed in claims are directed to non-statutory subject matter.

8-1. Regarding claims 1-5, it appears to be directed merely to the manipulation of an abstract idea of evaluating the reflection performance of a reflecting mirror without resulting in a practical application producing a concrete, useful, and tangible result. Specifically, it is not tangibly embodied and not in the technological arts because it could be practiced with pencil and paper.

8-2. The Examiner acknowledges that even though the claims are presently considered non-statutory they are additionally rejected below over the prior art. The Examiner assumes the Applicants will amend the claims to overcome the 101 rejections and thus make the claims statutory.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1-12 are rejected under 35 U.S.C. 102(a) as being anticipated by BRO, "ReflectorCAD User's Guide", Breault Research Organization, 1999, pages 1-87.

10-1. Regarding claim 1, BRO discloses a method of evaluating the reflection performance of a reflecting mirror designed for a vehicle lamp, comprising the steps of:

a) entering design information and position information, the design information representing a plurality of reflecting basic surfaces which constitute the reflecting mirror (segments, page 28, section "Creating and Aiming the First Segment", page 39, section "Creating More Segments"), and the position information containing a light source position in the vehicle lamp (set the bulb's filament positions for X, Y, and Z, page 26, step 9); and

b) displaying attribute information concerning an attribute indicative of whether imaginary light from the light source position can effectively reach each of a plurality of areas into which one reflecting basic surface selected from among the plurality of reflecting basic surfaces is divided on the basis of the design information (initial results in output view, page 38, Figure 24);

wherein the plurality of reflecting basic surfaces are discrete surfaces (segments, page 17, Figure 2, Reflector View).

10-2. Regarding claim 2, BRO further discloses comprising the step of:

c) displaying attribute information concerning the attribute with respect to each of a plurality of areas into which each of the remaining reflecting basic surfaces is divided on the basis of the design information (If a segment is selected, its output is displayed. Otherwise, the total output of all segments is shown, page 65, paragraph 6).

10-3. Regarding claim 3, BRO further discloses comprising the steps of:

d) generating divided area information so as to be associated with the design information, the divided area information being indicative of a plurality of areas, one reflecting basic surface selected from among the plurality of reflecting basic surfaces is divided into the plurality of areas on the basis of the design information (Increasing sampling gives more accurate results, page 65, paragraph 5);

e) making determination, on the basis of the divided area information and the design information, as to whether imaginary light from the light source position can effectively reach each of the plurality of areas of the selected reflecting basic surface (ReflectorCAD can quickly calculate the approximate output, page 65, paragraph 1); and

f) generating attribute information concerning the attribute assigned to each of the plurality of areas on the basis of the determination, the attribute information being associated with at least one of the design information and the divided area information (the results of an output calculation are available, page 65, paragraph 6).

10-4. Regarding claim 4, BRO further discloses comprising the steps of:

g) applying the step (d) to one reflecting basic surface sequentially selected from the remaining reflecting basic surfaces to update the divided area information, the divided area

information being associated with the design information (To calculate the output of all segments, page 65, paragraph 2);

h) applying the steps (e) and (f) to one reflecting basic surface sequentially selected from the remaining reflecting basic surfaces to update the attribute information, the attribute information being associated with at least one of the design information and the divided area information (To calculate the output of all segments, page 65, paragraph 2); and

i) displaying attribute information concerning the attribute with respect to each of the plurality of areas into which each of the remaining reflecting basic surfaces is divided on the basis of the design information (the total output of all segments is shown, page 65, paragraph 6).

10-5. Regarding claim 5, BRO further discloses the step (c) includes the steps of:

providing an evaluation point to each of the plurality of areas; generating a straight line, the straight line connecting the evaluation point to the light source position; and making determination as to whether the straight line intersects a reflecting basic surface other than the reflecting basic surface which is associated with the plurality of areas (In ReflectorCAD, you can easily check whether such discontinuities are shadowed, page 16, bullet 5).

10-6. Regarding claims 6-8, these system claims include equivalent method limitations as in claims 1-3 and are anticipated using the same analysis of claims 1-3.

10-7. Regarding claim 9, BRO discloses a computer-readable storage medium (BRO compact disc, page 7, paragraph 3) storing a program to be executed by a computer (ReflectorCAD program, page 7, paragraph 3), the program enabling the computer to evaluate reflection performance of a reflecting mirror desired for a vehicle lamp, wherein the program includes:

an input process provided so as to enter design information and position information of a light source position in the vehicle lamp (set the bulb's filament positions for X, Y, and Z, page 26, step 9), the design information being representative of a plurality of reflecting basic surfaces, the plurality of reflecting basic surfaces constituting the reflecting minor (segments, page 28, section "Creating and Aiming the First Segment", page 39, section "Creating More Segments"); and

a first display process provided so as to display attribute information concerning an attribute indicative of whether imaginary light from the light source position can effectively reach each of a plurality of areas, one reflecting basic surface selected from among the plurality of reflecting basic surfaces is divided into the plurality of areas on the basis of the design information (initial results in output view, page 38, Figure 24);

wherein the plurality of reflecting basic surfaces are discrete surfaces (segments, page 17, Figure 2, Reflector View).

10-8. Regarding claim 10, BRO discloses the program further comprises:

a second process provided so as to display attribute information concerning an attribute indicative of whether imaginary light from the light source position can effectively reach each of a plurality of areas, each of the remaining reflecting basic surfaces is divided into the plurality of areas on the basis of the design information (If a segment is selected, its output is displayed. Otherwise, the total output of all segments is shown, page 65, paragraph 6).

10-9. Regarding claim 11, BRO discloses the program further includes:

a first division process provided so as to generate divided area information, the divided area information including area data on a plurality of areas into which one reflecting basic

surface selected from among the reflecting information, the divided area information being associated with the design information (Increasing sampling gives more accurate results, page 65, paragraph 5);

a first determination process provided so as to make determination, on the basis of the divided area information and the design information, as to whether imaginary light from the light source position can effectively reach each area of the selected reflecting basic surface (ReflectorCAD can quickly calculate the approximate output, page 65, paragraph 1); and

a first attribute process provided so as to generate attribute information concerning the attribute assigned to each of the plurality of areas on the basis [of the basis] of the determination, the attribute information being associated with at least one of the design information and the divided area information (the results of an output calculation are available, page 65, paragraph 6).

10-10. Regarding claim 12, BRO discloses the program further includes:

a second division process provided so as to generate divided area information, the divided area information including area data on a plurality of areas, each of the reflecting basic surfaces is divided into the plurality of areas on the basis of the design information, the divided area information being associated with the design information (Increasing sampling gives more accurate results, page 65, paragraph 5; To calculate the output of all segments, page 65, paragraph 2);

a second determination process provided so as to make determination, on the basis of the divided area information and the design information, as to whether imaginary light from the light source position can effectively reach the plurality of areas of each reflecting basic surface

(ReflectorCAD can quickly calculate the approximate output, page 65, paragraph 1; To calculate the output of all segments, page 65, paragraph 2);

a second attribute process provided so as to generate, on the basis of the determination, attribute information concerning the attribute assigned to each of the plurality of areas of each reflecting basic surface, the attribute information being associated with at least one of the design information and the divided area information (To calculate the output of all segments, page 65, paragraph 2); and

a third display process provided so as to display the attribute information concerning the attribute with respect to each of the plurality of areas into which each of the remaining reflecting basic surfaces is divided on the basis of the design information (the total output of all segments is shown, page 65, paragraph 6).

Applicant's Arguments

11. Applicant argues the following:

(1) "Ishikawa's basic reflection surface Ro, Ro' is not made up of 'discrete surfaces,' as is required by the amended claims" (page 15, paragraph 2, Amendment).

(2) "Ishikawa's reflection surfaces R cannot correspond to the recited 'plurality of reflecting basic surfaces'" (page 15, paragraph 3, Amendment).

(3) "there is no teaching in Ishikawa of displaying attribute information concerning an attribute indicative of whether imaginary light from the light source position can effectively reach a plurality of areas of the reflection surface R" (page 15, paragraph 3, Amendment).

(4) "Finally, neither Breault nor Biermann makes up for the deficiencies in Ishikawa discussed above" (page 16, paragraph 2, Amendment).

Response to Arguments

12. Applicant's arguments have been fully considered.

12-1. Applicant's arguments (1)-(4) are moot in view of the new ground(s) of rejection. The rejections of claims 1-15 under 35 U.S.C. 103(a) in the Office Action dated January 21, 2005, have been withdrawn.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jean R. Homere can be reached on (571) 272-3780. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day
July 8, 2005 H.D.

Thai Phan
Patent Examiner